

WHAT IS CLAIMED IS:

1. A thermal interface for conducting heat, comprising:

a visible light curable viscous layer of elastomeric material, said material including, by weight, an elastomeric base matrix between approximately 35 and 75 percent, a catalyst between about 0.5 to 15 percent, and a hydrocarbon solvent between about 10 to 30 percent, said elastomeric material having a first side and a second side, said first side of said layer of viscous elastomeric material being applied to a heat dissipating surface in an uncured state, said layer of elastomeric material being cured by exposing said layer of elastomeric material to visible wavelength light; and

a thermally conductive filler material mixed throughout said elastomeric material;

said thermal interface being compressible when placed into contact with a heat-generating device.

2. The thermal interface for conducting heat of Claim 1, wherein said thermally conductive filler material is boron nitride.

3. The thermal interface for conducting heat of Claim 1, wherein said thermally conductive filler material is alumina.

4. The thermal interface for conducting heat of Claim 1, wherein said heat dissipating surface is the surface of a heat sink

5. The thermal interface for conducting heat of Claim 1, wherein said viscous elastomeric material is applied to said heat dissipating surface by screen printing.

6. The thermal interface for conducting heat of Claim 1, wherein said viscous elastomeric material is applied to said heat dissipating surface by stencil printing.

7. A thermal interface for use in conjunction with a heat sink assembly for conducting heat from a heat generating object, comprising:

a heat sink having a contact surface;

a layer of visible light curable viscous elastomeric material, said material including, by weight, an elastomeric base matrix between approximately 35 and 75 percent, a catalyst between about 0.5 to 15 percent, and a hydrocarbon solvent between about 10 to 30 percent, said layer having a first side and a second side, said first side of said layer of elastomeric material being applied to said contact surface of said heat sink in an uncured state, said viscous layer of elastomeric material being cured to form a solid layer of elastomeric material by exposing said layer to a visible light source;

a thermally conductive filler material mixed throughout said layer of elastomeric material;

said second side of said solid layer of elastomeric material being in communication with a heat generating surface of a heat generating object; and

a pressure means in communication with said heat sink for maintaining said second side of said solid layer of elastomeric material and said heat generating object

in communication with one another at a predetermined pressure.

8. The thermal interface assembly of Claim 7, wherein said thermally conductive filler material is carbon material.

9. The thermal interface assembly of Claim 7, wherein said thermally conductive filler material is boron nitride.

10. The thermal interface assembly of Claim 7, wherein said thermally conductive filler material is alumina.

11. The thermal interface assembly of Claim 7, wherein said viscous elastomeric material is applied to said contact surface of said heat dissipating member by screen printing.

12. The thermal interface assembly of Claim 7, wherein said viscous elastomeric material is applied to said contact surface of said heat dissipating member by stencil printing.